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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/505,473

12/12/2005

Rainer Hahn

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EXAMINER

EIDE, HEIDI MARIE

ART UNIT

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3732

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/505,473	Applicant(s) HAHN ET AL.	
	Examiner HEIDI M. BASHAW	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/12/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the details of figure 2 are not clearly illustrated. The details needed to understand the workings of the instrument are illustrated in figure 2, however are very small which makes it hard to see every claimed limitation. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 24 and 16. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

1. The amendment filed June 19, 2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the limitations added to amended paragraph beginning at page 9, line 1; the limitations included in the new paragraph on page 9, before line 16 and the limitations included in the new paragraph on page 20, after line 28. The limitations of those paragraph that are considered new matter are that the scope of the invention is not limited to the embodiments of the disclosed and that numerous modifications would have been obvious to one having ordinary skill in the art at the time of the invention and the aspects of the invention may be combinable. These limitations are considered new matter because the originally filed specification does not contain support for these broadening limitations.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3-5 and 8-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites the

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limitation "the reservoir" in line 4. There is insufficient antecedent basis for this limitation in the claim.

4. Claim 6 recites the limitation "the second working space" in lines 3, 5 and

8. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 6 recites the limitation "the reservoir" in line 6. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 8 recites the limitation "the outlet" in line 5. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 9 recites the limitation "the inlet" in line 2. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 10 recites the limitation "the reservoir" in line 2. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 17 recites the limitation "the inward movement" in line3. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 17 recites the limitation "the outward movement" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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12. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ellion et al. 6,030,215 (Ellion).

13. Ellion discloses a dental therapeutic instrument for rinsing dental tissue with a therapeutic liquid, the dental instrument comprising a storage container 71 for the therapeutic liquid, a cannula 22 for introducing the therapeutic liquid onto the tissue, a pump which supplies the therapeutic liquid to the cannula from the storage container and a pump which withdraws therapeutic liquid by suction via the cannula (col. 7, ll. 15-38) wherein the storage container, the cannula and the pumps are combined into a handpiece type unit as illustrated in fig. 7. Ellion further teaches the pump that supplies the therapeutic liquid to the cannula and the pump that aspirates the therapeutic liquid via the cannula are implemented by a single pump 64, the working direction of which is reversible and wherein the single pump comprises a double acting, linearly mobile piston 44 which with one end region border a first working space (see lower portion of fig. 6b) and the opposite end region border a second working space 51/48 which communicates with the cannula, the first working space communicating with the second working space via a flow path in which a check valve 42 is situated which permits a flow of the therapeutic liquid only from the first working space into the second working space.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

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be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellion et al. 6,030,215 (Ellion).

16. Ellion teaches the invention as discussed above, however does not specifically teach the first working space is connected to the reservoir via a check valve. Ellion teaches, as illustrated in fig. 2, a check valve 18 located between the reservoir and a working space. It would have been obvious to one having ordinary skill in the art to modify the embodiment of fig. 7 of Ellion with embodiment of fig. 1 in order to prevent the fluid from the working space being forced back into the reservoir (col. 3, ll. 43-45). Ellion further teaches regarding claim 4, the flow path leading from the first working space to the second working space is a bore which is directed axially through the piston 44 as illustrated in figs. 6a-6b. As to claim 5, Ellion teaches, as illustrated in fig. 6a, the cross-section of the end region of the piston 44 adjoining the first working space is smaller than the cross-section of the end region of the piston 44 adjoining the second working space 51/48.

17. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellion et al. 6,030,215 (Ellion) as applied to claim 2 above, and further in view of Hahn 6,997,883.

18. Ellion does not specifically teach the instrument further comprising a control valve provided which in a first position connects the working space to the cannula via a flow path that is capable of being flowed through in both directions

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and in a second position connected the working space to the cannula and to a further flow path leading to the reservoir via a flow path that is capable of being flowed through only in the direction towards the cannula, a check valve which permits a flow in the direction toward the working spaces is situated in the further flow path and wherein the control valve comprises a slide which is capable of being displaced linearly in a bore (col. 17, ll. 24-31). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Ellion in view of Hahn to help ensure the fluid taken from the mouth does not return to the reservoir.

19. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellion et al. 6,030,215 (Ellion) as applied to claim 3 above, and further in view of Frey et al. 5,295,829 (Frey).

20. Ellion teaches the double acting piston 44 is driven by an actuating piston 41. Ellion does not specifically teach the actuating piston is acted upon on one side by a compression spring and on the opposite side adjoins a pressure chamber which communicates with an outlet of a compressed air pulse generator and the inlet of the air generator is capable of being connected to a compressed air supply cable for conventional dental handpieces via a standard coupling.

Frey teaches an actuating piston 30 is acted upon one side by a compression spring 39 and on the opposite side adjoins a pressure chamber 80 that communicates with an outlet of a compressed air generator 37 that is capable of being connected to a compressed air supply cable for conventional dental handpieces via a standard coupling. It would have been obvious to one having

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ordinary skill in the art at the time of the invention to modify Ellion in view of Frey in order to reduce the manual labor required to operate the device.

21. Claims 10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellion et al. 6,030,215 (Ellion) as applied to claims 1-3 above, and further in view of Donohue et al. 4,617,918 (Donohue).

22. Ellion teaches the invention as discussed above, however, does not teach the reservoir is a detachably fitted syringed which exhibits a smooth running syringe piston and wherein the syringe is disposable and has no piston rod. Donohue teaches the reservoir is a detachable fitted syringe, as illustrated in fig. 1, which is capable of exhibiting a smooth running syringe piston that has no piston rod and is disposable. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Ellion in view of Donohue in order to easily refill the reservoir.

23. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellion et al. 6,030,215 (Ellion) in view of Donohue et al. 4,617,918 (Donohue) as applied to claim 10 above, and further in view of Baum et al. 5,252,064 (Baum).

24. Ellion in view of Donohue teaches the invention as discussed above, however, does not specifically teach the syringe is a re-usable syringe consisting of autoclavalbe material. Baum teaches a re-usable syringe consisting of an autoclavalbe material (col. 4, ll. 32-36). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Ellion in view of Donohue further in view of Baum in order to reduce waste.

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25. Claims 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellion et al. 6,030,215 (Ellion) as applied to claim 1 above, and further in view of Donohue et al. 4,617,918 (Donohue) in view of Dragan 4,569,662.

26. Ellion teaches the invention as discussed above, however, does not teach the storage container is constituted by a syringe with a syringe body and a syringe piston, which is connected to a linearly mobile output member of a reversible drive device for the syringe piston wherein the drive device exhibits an electric motor and battery energizing the motor, wherein the drive device exhibits control electronics which are programmed in such a way that the syringe piston is capable of being moved back and forth at a certain repetition frequency, wherein the control electronics are programmed in a way that the syringe executes a larger stroke in the course of the inward movement than in the course of the outward movement and wherein the control electronics can be operated in a second operating mode in which the syringe piston exclusively executes an inward movement. Donohue teaches the storage container is constituted by a syringe with a syringe body and a syringe piston as illustrated in fig. 1. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Ellion in view of Donohue in order to easily refill the reservoir. Dragan further teaches the syringe is connected to a linearly mobile output member 224 of a reversible drive device for the syringe piston wherein the drive device is an electric motor 222 which is energized by a battery 223 (col. 17, ll. 36-53). Dragan further teaches the instrument wherein the drive device exhibits control electronics which are programmed in such a way that the syringe piston is

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capable of being moved back and forth at a certain repetition frequency (col. 18, ll. 9-13). As to claims 17 and 18, Dragan does not specifically teach the control electronics are programmed in such a way that the syringe piston executed a larger stroke in the course of the inward movement than in the course of the outward movement and also wherein in a second operating mode the syringe piston exclusively executes an inward movement, however, the device taught by Dragan is capable of functioning and being programmed as claimed and it would have been obvious to one having ordinary skill in the art to program the movements of the syringe according to the users preference. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Ellion in view of Donohue further in view of Dragan as a matter of obvious design choice since Dragan teaches manually operating the piston and electronically operating the piston.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. BASHAW whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Bashaw
Examiner
Art Unit 3732

/John J Wilson/
Primary Examiner
Art Unit 3732

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9/23/2008